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ABSTRACT

The Fort Bragg Child Mental Health Demonstration Project is an integrated services system which provides a comprehensive, organized system of mental health and substance abuse services. The project serves approximately 46,000 children (under 18 years of age) in the Fort Bragg catchment area (a 5,000 square mile area within a 40-mile radius of Fayetteville, North Carolina) who are eligible for the Civilian Health and Medical Services Program of the Uniformed Services (CHAMPUS). This paper presents the project's three primary goals which arose from the belief that the development of alternative mid-range services, which are less restrictive and less expensive, can be provided for children who, otherwise, would be hospitalized. The report describes the clinical component of the program along with valuative approaches and the intended impact. Specific needs on which the project focuses, such as the need for improved services and cost containment, are also discussed. Costs arising from the absence of a middle range of services (which causes children who need more than outpatient services to be admitted to inpatient units) receive lengthy treatment. The report also addresses the project's continuum of care and system of services with an analysis of client population, clinical services and assessment, outpatient treatment services, individualized services, and residential treatment services. Although conclusive results are not yet available, preliminary data suggest that the Demonstration Project has reduced the utilization of inpatient and residential care by using high quality, lower cost, intermediate-level care and outpatient services. (RJM)

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Lenore Behar, Leonard Bickman, Theodore Lane, W. Presley Keeton, Michael Schwartz

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THE FORT BRAGG CHILD & ADOLESCENT MENTAL HEALTH DEMONSTRATION PROJECT

Lenore Behar, Leonard Bickman, Theodore Lane, W. Presley Keeton, Michael Schwartz

The Fort Bragg Child Mental Health Demonstration Project is an innovative approach for providing a comprehensive, organized system of mental health and substance abuse services to approximately 46,000 children of military families who are eligible for the Civilian Health and Medical Services Program of the Uniformed Services (CHAMPUS). These children, under age 18, reside in the Fort Bragg catchment area, a 5,000 square mile area within a 40 mile radius of Fayetteville, North Carolina. The project strives to improve services to children by making available and linking together a wide range of community-based mental health and substance abuse treatment services into a comprehensive continuum of care; that is, a seamless system of services. Through ongoing review of each child's treatment program, the positive features of managed care are used.

This demonstration project is a prime example of an integrated services system. It is the largest child mental health and substance abuse demonstration project in the country. The Department of the Army funded this demonstration project in 1989 through a 61 month cost-reimbursement contract with the North Carolina Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS). DMH/DD/SAS, nationally recognized as an innovator in child and family mental health and substance abuse services, oversees both the clinical component and an independent evaluation component. The budget for the project for 1993 was approximately $21 million

This document was prepared using information produced during the past four years by individuals who have been central to the planning and implementation of this complex project. Those listed below deserve credit not only for parts of the written materials but for their on-going efforts in developing and sustaining the high quality of services and research that distinguish this demonstration project. Special recognition is due to: J. Edward Brannock, Lawrence Crumbliss, Louis Stein, Anna Maria Brannan, Craig Ann Heflinger, Carolyn Breda, Pamela Guthrie, Warren Lambert

for the project management, clinical component and evaluation component.

Project Goals

The goals of the project are: (1) to demonstrate that, as an alternative to the traditional services covered by CHAMPUS, a full community-based continuum of mental health and substance abuse treatment services for children can be tailored to each client's needs and, thus, provide a more appropriate set of treatment services with equal or better outcomes; (2) to show that a full continuum of mental health and substance abuse services can be provided to more clients for less cost per client; and (3) to demonstrate the efficacy of a federal-state partnership to provide a locally managed, continuum of mental health and substance abuse treatment services for military children.

The rationale for the continuum of care stems from the belief, long advocated by the mental health community, that with the development of alternative mid-range services, less restrictive and less expensive services can be provided for children who, otherwise, would be hospitalized. Similarly, the belief is that for those children who are appropriately hospitalized, the length of stay can be shortened due to the availability of appropriate step-down services. The demonstration project addressed the benefits of such a service system from two perspectives. It is proposed that clients receive more appropriate care, and that such care is lower cost per client to those who must pay for it.

This demonstration project provides the only example, to date, of implementing a comprehensive, fully integrated, community-based continuum of care for children on such a large scale basis. With a single point of entry, a system for case monitoring and management, and a single payer source, the project provides an opportunity for testing the implementation and maintenance of such an approach under the "best possible" conditions.

Clinical Component

The clinical component is funded through a subcontract with a local government

entity, the Lee-Harnett Area MH/DD/SAS Program and the Cardinal Mental Health Group, Inc., a private not-for-profit corporation whose sole purpose is to provide or arrange for services under this contract. Cardinal Mental Health Group, Inc. operates the Major General James H. Rumbaugh Child and Adolescent Mental Health Clinic (Rumbaugh Clinic) through which clinical services are delivered and managed. The Rumbaugh Clinic provides a full range of child mental health and substance abuse services, except for psychiatric inpatient services and hospital-based residential treatment. The Rumbaugh Clinic subcontracts with most public and private providers in the community to augment the clinic's outpatient capacity and for services the clinic does not provide. Although the Rumbaugh Clinic subcontracts for these services, the clinic continues to manage the client's treatment and the utilization of these services. Thus, Cardinal, Inc. serves both as a provider of community-based services and a managed care organization.

After a ten month start-up period during which staff were recruited, hired and trained and the clinic's services were organized, the Rumbaugh Clinic began providing services on June 1, 1990. To serve this traditionally under-served community, a wide range of community-based services were created, and existing publicly and privately operated services were incorporated into the project through contracts. The demonstration offers a wider range of mental health and substance abuse services than are benefits under CHAMPUS. Many of the services that are not standard CHAMPUS benefits are designed to serve both as alternatives to unnecessary hospitalization and as aftercare for necessary hospitalization. The continuum of services includes:

intake assessment services
24-hour crisis counseling and emergency services
clinical case management
individual, group, and family outpatient services, including wrap-around services
day treatment services
in-home crisis stabilization and family preservation services
therapeutic individual home (treatment foster care)
therapeutic group home

crisis stabilization group home
larger group residential treatment
partial and full psychiatric hospitalization

In contrast, at the beginning of the project, CHAMPUS covered outpatient, residential treatment, and psychiatric inpatient treatment. Partial hospital care was added October 1, 1993.

The demonstration project acts as an exclusive provider. All those eligible for CHAMPUS who are under age 18, who reside in the catchment area and who are seeking mental health or substance abuse treatment services are required to access services through the Rumbaugh Clinic. The CHAMPUS deductible and co-payments have been waived, and thus services are provided at no cost to families whose children are eligible to receive services. Any family seeking mental health or substance abuse services outside the Demonstration Project would receive no CHAMPUS coverage and would have to pay for these services. There is no payment either by the project or by CHAMPUS for providers of services who are not under contract to the project or for services not authorized by the project.

Children enter the service system through the Rumbaugh Clinic, which serves as a single point of access. Prospective clients are provided a comprehensive assessment to identify their mental health and substance abuse treatment needs. Through a multi-disciplinary treatment team and case management approach, the project mobilizes the community's mental health and substance abuse resources and carefully coordinates each child's care to make sure he or she receives the right mix of needed services in a clinically appropriate and cost-effective manner. In addition to coordinating each child's care with appropriate service providers in the community, the Rumbaugh Clinic coordinates with other relevant agencies such as the child's school system, local departments of social services, juvenile justice system, Womack Army Medical Center, and others when indicated,

to facilitate optimum implementation of the child's treatment plan.

Services are individually planned for each child and are provided in the least restrictive setting possible. Families are encouraged to be part of the treatment team and thus participate in the treatment planning process. Treatment may be provided at the Rumbaugh Clinic, in the home, at school, in therapeutic residential settings, or by hospitals and private service providers in the community, as appropriate. Each child's progress is reviewed at regular intervals, or sooner if needed, by the treatment team to ensure its effectiveness and continued appropriateness. Services are modified, added, or discontinued according to the child's progress and continuing needs.

Evaluation Component

To study the effectiveness of the demonstration project, an independent evaluation is being conducted by the Center for Mental Health Policy of the Institute for Public Policy Studies at Vanderbilt University through a subcontract with the DMH/DD/SAS. The National Institute of Mental Health provides a supplemental grant to Vanderbilt University. Vanderbilt University is comparing the demonstration service delivery system with the standard CHAMPUS system at two control sites -- Fort Campbell, Kentucky and Fort Stewart, Georgia. The evaluation examines four major areas: outcomes of treatment, costs of providing services, quality of services, and implementation issues. The quality and implementation studies were completed on September 30, 1993. The outcomes and costs studies are expected to be completed September 30, 1994.

Intended Impact

The original intent was that the results of the demonstration project be considered in the redesign of the CHAMPUS benefits package. However, it is anticipated that the innovations tested by this project will have a more far reaching impact on contributing to the restructuring of mental health care for children and families, in both the public and

private sectors. Data from the demonstration project has been shared with the Task Force on National Health Care Reform and the US Senate Committee on Labor and Human Resources, as well as other federal, state, and local groups working to reform health care. The demonstration project also provided the blueprint for North Carolina's Section 1915(b) Medicaid waiver program, known as Carolina Alternatives, that began on January 1, 1994.

THE PROBLEMS ON WHICH THE DEMONSTRATION PROJECT FOCUSES

Need for Improved Services

Consensus exists in the mental health field that major improvements are needed in the delivery of mental health services to children and their families. It has been reported that many children are not getting services and that other children are receiving inappropriate services (Knitzer, 1982; Saxe, Cross & Silverman, 1988; Knitzer, 1993). These authors have highlighted the vast discrepancy between the numbers of children in need of mental health services and those who receive services. According to the report issued by the Office of Technology Assessment, more than half of these children receive no treatment at all, and many who are treated are receiving inappropriate care (Saxe, Cross, & Silverman, 1988). Senator Daniel Inouye (1988) indicated that 80% of the children who need services are receiving inappropriate or no care.

One aspect of this complex problem appears to be the over-utilization of unnecessarily restrictive treatment settings. Most agree that children with emotional problems are best treated in the least restrictive, most normative environment that is clinically appropriate. However, according to Congressional testimony, the number of children placed in private inpatient psychiatric settings increased from 10,764 in 1980 to 48,375 in 1984 -- a 450% increase (Stroul & Friedman, 1986). The number of private psychiatric hospitals grew substantially during the past decade and continues to grow (Bickman & Dokecki, 1989). The best estimate to date (Burns, 1990) is that more than 70% of the funding for children's

mental health services nationwide is spent on institutional care.

Contributing to this problem is the fact that alternative treatment settings have been frequently unavailable. Knitzer (1982), Behar (1985), and Silver (1984) all reported that approximately 40% of inpatient placements were inappropriate because either (a) the children could have been treated in less restrictive settings, or (b) the placements that were initially appropriate were no longer appropriate, but less restrictive treatment settings were not available. Little improvements have been made despite emerging evidence that children with serious emotional disturbance and/or substance abuse benefit from treatment while living in their own homes when a comprehensive system of care is present in the community (Behar, 1985). Even when services are available, the lack of coordination between programs compromises the effectiveness of the interventions (Stroul & Friedman, 1986; Saxe, Cross, Silverman, Bachelor & Dougherty, 1987; Macbeth, 1993). Given the developmental complexity and multiple needs of children, services must be both available and coordinated (Behar, 1985; Duchnowski & Friedman, 1990; Macbeth, 1993).

Need for Cost Containment Strategies

The issue of an inadequate array of services for children with mental health and/or substance abuse problems appears to have been compounded by the increased availability of psychiatric hospital programs during the past decade. In the absence of the mid-range of services, many of those children needing more than outpatient services have been "bumped up" to inpatient units, using a range of payment methods including Medicaid, CHAMPUS, other third parties, family funds and state funds.

In the absence of a continuum of treatment services, it appears likely that CHAMPUS, like all other financing bodies of mental health services, has reimbursed for hospital and residential services for children for whom such services would not be indicated if less intensive, less restrictive, and less costly mid-range services were available. Both parents

and professionals have been concerned that some placements are inappropriate either because the children could have been served in less restrictive settings, if they had been available, or because the placements originally considered appropriate no longer are, but no less restrictive settings exist to receive the children upon discharge (Weithorn, 1988; Institute of Medicine, 1989; Burchard & Clarke, 1990; VanDenBerg, 1993; Lundy & Pumariega, 1993; Epstein, Cullinan, Quinn & Cumblad, 1994). These concerns are not specifically about services to military children, but there is little reason to believe the situation is better for them; possibly it is worse, given the remote areas where military installations are located and the likelihood that alternative community-based mental health services would not be readily available.

Because of the availability of CHAMPUS data for review and because of Congressional awareness of increasing expenditures for CHAMPUS, the high costs and high utilization of psychiatric hospitalization for children were issues even before the concern was raised by other benefit plans. As early as 1981 in the User's Guide, CHAMPUS reported that, "by far the most costly admission of inpatient psychiatric services was for behavior disorders of childhood which averaged $14,951 per admission. This diagnostic group also had the highest average length of stay of 84 days."

By 1983, these figures had increased to an average of $28,563 and an average length of stay of 102 days. The report of the Department of Defense 1983-84 expenditures indicates that 65% of CHAMPUS reimbursements of psychiatric hospital costs were for children, reaching a yearly cost of $74 million. In 1983 CHAMPUS attempted to address part of this problem of apparent over-utilization of psychiatric hospitals by limiting the use of this setting to 60 days per calendar year and by requiring considerable justification for exceptions. Despite this cap on expenditures, CHAMPUS cost for psychiatric hospital and residential services combined for children more than doubled to $156 million in 1985.

The restriction on hospital days was not accompanied by any restriction on length of stay in residential treatment, resulting in a 100% increase in the use of residential treatment between 1984 and 1986. Further study by CHAMPUS of the cost of psychiatric services to children revealed that there was almost a threefold increase in residential treatment centers "attached to" psychiatric hospitals between 1982 and 1985. When less restrictive, non-residential, alternatives are not provided, this may merely redirect clients to residential treatment.

Between 1985 and 1989 CHAMPUS mental health care costs again doubled to slightly over $600 million. This represented expenditures of approximately a quarter of the entire CHAMPUS health care program. Treatment of youths aged 10 to 19 accounted for 73% of inpatient mental health costs in 1989. Between 1986 and 1989, hospital admissions of youths aged 10 to 19 went up 65%, and the length of stay grew by 86%, according to a report the Defense Department submitted to Congress in March 1991. In January 1990, CHAMPUS instituted the National Mental Health Utilization Management Program to review and pre-authorize the use of inpatient and residential treatment center care. In October 1991, CHAMPUS further reduced its inpatient benefit to 45 days per year for children and placed a cap of 150 days per year on use of residential treatment center care. Until recently, the attempts to decrease the use of psychiatric hospital and residential treatment have not included requirements for the use of non-residential services, other than outpatient services, as alternatives to hospitalization or for aftercare.

When aftercare services to hospitalization and residential treatment do not exist, there is reason to believe that the result may be an increase in readmissions and/or a loss of the therapeutic gains. It is also believed that by developing less intensive services, many children can enter the system at these levels, precluding the use of hospital or residential treatment.

CHAMPUS has attempted to contain costs (1) by limiting costs per visit or per day; (2) by capping length of stay or number of visits; and (3) by using a managed care approach to pre-certify hospital and residential treatment admissions and eliminate unnecessary care. These cost containment efforts have been based on the assumption that costs and/or service utilization may be excessive or unnecessary. For some clients, this approach may do no harm; however, others who are appropriately denied this level of service may still suffer from a lack of needed treatment (Burns, Thompson & Goldman, 1993). Although CHAMPUS provides more generous benefits than most insurers, the absence of mid-range services of the continuum leaves these problems unaddressed.

In pursuit of alternatives to traditional CHAMPUS services for children with mental health and/or substance abuse problems, the Department of the Army, in August 1989, agreed to fund the Fort Bragg Child and Adolescent Mental Health Demonstration Project through a contract with the North Carolina Division of MH/DD/SAS.

System of Care as a Possible Remedy to Current Problems

The concept of the system of care has emerged i[illegible]ponse to the problems characterizing mental health service delivery systems for [illegible]hildren (Stroul & Friedman, 1986; Lourie & Isaacs, 1988; Jordan & Hernandez, 1990). The [illegible]rm "system of care" refers to the comprehensive range of services required to treat children with mental health and/or substance abuse problems. This approach attempts to deliver needed services on an individualized basis and in a coordinated manner, relying on a case manager to integrate treatment programs and facilitate transitions between services. The system is designed to be community-based, involving various agencies pertinent to children's developmental, social, medical, and mental health needs. The wide range of services within the system are less expensive individually and in combination, for the most part, than inpatient services. Therefore the system of care also offers promise of being a sound cost containment strategy.

Prior to the Fort Bragg Demonstration Project, there has not been a definitive study that has demonstrated either the treatment effectiveness or the cost savings of the system of care model over the traditional method of service delivery. The Fort Bragg Demonstration Project is the first comprehensive system of care to be implemented on such a large scale and to be rigorously evaluated.

THE PROJECT'S CONTINUUM OF CARE/SYSTEM OF SERVICES

Client Population

The target population for the Demonstration Project is the child population under age 18 who reside in the Fort Bragg catchment area and are eligible for mental health or substance abuse services as a CHAMPUS benefit. In 1992, this population was approximately 46,000, of which 86.8% are dependents of active duty military and 13.2% are dependents of retired military or survivors of military members who died in service.

Clients accepted for services must meet criteria for a mental health or substance abuse disorder as defined by DSM-III-R, other than, or in addition to, V-code conditions, mental retardation, or specific developmental disorders. Of the clients served, 66.4% are Caucasian, 21.7% are African American, 5.4% are Hispanic, 0.3% are Native American, 0.2% are Asian, and 6.0% are either other or unknown. These figures closely follow the racial mix of the eligible population. The eligible population is slightly skewed towards the younger side with 35.5% in the 0-4 year age group, 52.5% in the 5-14 year age group, and only 12.0% in the 15-17 year age group. However, in 1993, the population served included a higher percentage of adolescents than young children with 14% being 0-5 years of age, 54% being 6-12 years of age, and 32% being 13-17 years of age. Approximately 60% of the clients are males and 40% are females. Clients are referred by the traditional referral sources; however, the comprehensive primary health care site at the military hospital has been the largest referral source.

In 1993, there were approximately 2,500 active cases at any given time or about 3,250 clients per year, the latter represents approximately 7.1% of the eligible population.

These numbers are somewhat below national figures reflecting children in need of services. According to the US Department of Health and Human Services, in 1990, 12% of children under 18 have diagnosable psychological disorders with nearly half (6%) being severely disabled by their mental health problems. However, these figures are consistent with utilization figures reported elsewhere. Reports of the current use of mental health services by children in major HMOs is 6-8% of the enrolled population.

Under the terms of the contract, a waiting period of 21 days for non-emergency and non-urgent cases is maximum. Funding allows for increases in staff or purchased services to meet these terms; thus access is optimal. Careful reviews of clinic records over a three-year period by Army psychiatrists and other independent reviewers identified no clients who were receiving services unnecessarily.

Ethical/Philosophical Considerations in Cost Containment Strategies

In an effort to control mental health and substance abuse health care costs, many health benefits plans limit the types of services as well as the number of days of coverage provided. Clinicians working under these benefit plans tend to be limited in what they can offer clients, and clients may not always receive the right level and amount of care they may need. Although benefits under these plans are limited, these plans could still unnecessarily cost more than if a wider range of less restrictive and less expensive services were available. Many third party payers appear to be reluctant to offer their beneficiaries a full system of care out of concern that it will increase utilization of services and costs. This differs from the approach taken by the Demonstration Project where costs are controlled by carefully managing the benefit rather than by limiting it. A wider range of services is available as part of the system of care from which to customize a more clinically appropriate treatment

plan for the client. Clients are not arbitrarily limited to a set number of days of coverage; rather coverage is limited to that which is medically or psychologically necessary to meet the client's needs. Cost savings result from providing the right mix and right amount of needed services in the least restrictive clinically appropriate setting. Preliminary data appears to support this approach to cost control. It is hoped that the final data will conclusively demonstrate the validity of this approach to cost control and result in benefits plans or health care reform expanding the benefit to include the full system of care.

Clinical Services

The project's delivery system is an integrated services system that includes multiple levels of care. By providing the right mix and level of services and responding rapidly to the client's changing needs, more appropriate treatment can be provided. The capacity to use multiple services concurrently provides an intensity of service that could provide for the child's entire waking hours without the child having to live away from home. This technique is designed to shorten the length of hospital/residential services or to prevent their use.

The traditional model, with fewer available levels of care, typically requires longer periods at higher levels and generally tends to be less responsive to the client's changing needs. Additionally, the traditional model most often requires a "search and apply" method of locating and accessing services wherein the private professional or the parent has to find a service that has space for the child, make application and have the admission request reviewed. Denials for admission require that the same process begin again. In the Demonstration Project, all services are under the same management structure either as a part of the Rumbaugh Clinic or under contract. The movement of clients from one service or set of services to another is determined by a multi-disciplinary treatment team composed of highly qualified mental health professionals, and services are easily accessed within the system by the program staff rather than a referral process.

The levels of care in the demonstration project's continuum include: (1) Outpatient Services, (2) Individualized Services (including In-Home/Family Preservation Services and Family Support Services), (3) Community Education Treatment Services (Day Treatment Services), (4) Residential Services (including therapeutic homes and therapeutic group homes), and (5) Residential Treatment Center and Inpatient Services. An Intake Assessment/Emergency Services component was developed as a discrete section with the primary functions of determining eligibility for services, initiating the treatment planning process and coordinating 24-hour emergency coverage. Clinical Case Management was established as a separate section with the objective of providing "operational services" (Stroul & Friedman, 1986) within the system of care.

Clinical Assessment. This service provides the point of entry into the system of care for all clients. An initial telephone screen is conducted to determine client eligibility and intake priority, and an intake assessment is scheduled. During the past three years, an average 7.5% of calls are screened out prior to receiving an intake assessment because program or diagnostic eligibility criteria are not met.

At intake, a comprehensive diagnostic protocol is completed which includes child and parent clinical interviews (Dougherty & Schinka, 1989), developmental history (Dougherty & Schinka, 1989), social and family history which covers educational/legal/medical domains, standardized behavioral checklists from multiple reporters (Achenbach & Edelbrock, 1983), substance abuse screening for ages eleven and older (Winters 1988), and measurement of stressful life events (Johnson & McCutcheon, 1980). Routine assessments are normally available within one to three weeks. Emergency assessments are available within two hours of telephone contact around-the-clock. Emergency assessments are clearly tied to crisis intervention services, which are either directly provided or coordinated by this section, with full-time administrative, psychological and psychiatric support.

This section is headed by a masters level psychiatric nurse and staffed by masters level clinicians and psychiatric nurses. Contracts with private providers have been utilized on a part-time basis to supplement the staff during periods of high demand for services.

To begin the treatment planning process, assessment data are presented to a multi-disciplinary treatment team, led either by a licensed psychologist or a child psychiatrist, within two days of the intake interview. The family and the child, if mature enough, are part of the treatment team, as are professionals involved with the child from other agencies, such as teacher, protective services worker or court counselor. The treatment team makes decisions regarding eligibility for services, diagnoses, preliminary treatment plan, and disposition, including level(s) of care determination. Decisions regarding the level of treatment are made using written guidelines contained in the clinic's "Criteria for Levels of Care". An average 6.5% of clients are determined to be diagnostically ineligible by the treatment team following intake assessment.

If a client is referred to "outpatient-only" services, a comprehensive treatment plan must be developed within 30 days of first contact, at which time the plan is reviewed by the treatment team leader and other members of the multi-disciplinary treatment team, as appropriate. At this point, unless a shorter period is clinically indicated, the treatment team will authorize outpatient care up to a total of 23 visits or one year, which ever is sooner. Clients who are referred to any services other than outpatient at the initial treatment team meeting must have a comprehensive treatment plan and team meeting within two weeks of admission. Treatment team meetings and treatment plan reviews for these clients must then occur at least every 60 days, more frequently if clinically indicated (e.g. hospital cases are reviewed weekly).

Care planned to extend beyond the initial period of authorization must be reviewed, approved, and re-authorized by the treatment team. Any team member, including the child

or family, may call a meeting at any time in order to address concerns or modify the treatment plan. Any changes in level of care require prior review at a treatment team meeting.

The comprehensive initial client/family assessment completed on all new referrals and multi-disciplinary treatment team meetings enhance the ability to make appropriate clinical decisions regarding level of care assignment and treatment plan development. Each team has the authority necessary to implement its decisions. The treatment team format enhances continuity of care, reduces component level resistance to accepting specific clients into their services, and prevents specific components from making unilateral decisions regarding client discharge. It is also an important means of involving families in the treatment planning process.

Outpatient Treatment Services. Outpatient services are provided by a variety of doctoral and masters level clinicians. The majority of these services, about 65%, are provided by contract providers which include all the mental health disciplines. The remainder is provided by Rumbaugh Clinic staff. Clients who require more intensive outpatient services or outpatient services in conjunction with other therapeutic services are normally assigned to Rumbaugh Clinic providers, while clients who require less intensive outpatient services are usually assigned to contract providers in the community. Outpatient services within the clinic have been more broadly based and flexible than traditional private practice, with emphasis on family-based treatment, group treatment, and ecologically valid assessments and interventions that require clinicians to work out of the office setting. A wide range of intensity and frequency of services is available, as are specialized evaluations. In order to maintain clients with greater problem severity at the outpatient level of care, for example, clinicians have been authorized to see clients up to five times weekly during periods of crisis. Outpatient clinicians may also provide treatment in conjunction with other services in the

system of care. Evening hours have been established to improve accessibility. Treatment focuses on supporting and enhancing adaptive competencies within the client and family, utilizing research supported interventions, when at all possible, while maintaining a standard that all treatment must be individualized.

Individualized Services. These services consist of In-Home/Family Preservation Services and Family Support Services, and represent an intermediate level of care that has not previously been available to this client population.

In-Home/Family Preservation Services. Generally, this section is modeled on "family preservation" programs (Edna McConnell Clark Foundation, 1985; Kinney, Haapala, & Booth, 1991) and is staffed by masters level clinicians. The primary purpose is to prevent out-of-home placement of children from families experiencing acute crisis, for whom outpatient services are inadequate. In-home treatment may also be used as stepped-down service from residential/hospital care, to promote successful reunifications of families. Therapists are each assigned caseloads of two to four families, and are essentially on call around the clock for those cases. Interventions are typically provided in the client's home; methods utilized include skills training, systemic family therapy, supportive counseling, and helping the family access other needed services or resources. The length of treatment is usually between six and twelve weeks with an average of nine weeks.

Family Support Services (Wrap-around Services). This section provides highly flexible, individualized support to clients in basically any setting. Family Support Specialists are paraprofessionals with child mental health training and experience. They provide one-on-one support and structure for clients in the home, at school, even to supplement staff in residential treatment.

Community Education Treatment Services (CETS). This section operates three day treatment programs with a capacity of 16 clients each -- two programs for adolescents, and

one for latency age children. These day treatment programs provide therapeutic and educational services to clients who are displaying behavioral and emotional problems in the school setting of such intensity that continuation at the home school is presently impossible or they are at high risk for residential or inpatient treatment. Day treatment services are also used as a step-down service from residential/hospital care in order to facilitate successful transitions to community, school and family. This service includes intensive substance abuse treatment, utilized as indicated. Each day treatment program is certified as a school and emphasizes enhanced academic attendance, skills, and performance. Each program has an environment based on social learning principles, skill development, and an understanding of the developmental tasks facing client and family. Family-oriented interventions, such as multi-family groups, are also central to these programs. Length of stay averages 19.3 weeks for the two adolescent day treatment programs and 14.3 weeks for the latency age day treatment program.

Residential Treatment Services. Consistent with the treatment philosophy of the larger system, residential care is: a) provided with the goal of reunifying the client and family as soon as possible, and thus integrates work with the client's family in the residential setting; b) viewed as a more normalized, less restrictive alternative to hospital level of care, and may be utilized either to prevent the need for hospitalization or as a step down from hospital care. This section, headed by a clinical social worker, oversees the operation of 39 licensed therapeutic homes, operates two six-bed group homes and one six-bed crisis-stabilization group home.

Therapeutic Homes. The therapeutic homes program at the Rumbaugh Clinic is conceptually similar to programs such as People Places in Virginia (Bryant, 1980) and PRYDE in Pittsburgh (Hawkins, Meadowcroft, Trout, & Luster, 1985). Referrals to therapeutic homes include clients of all ages with serious emotional/behavioral disturbances,

including substance abuse disorders. Treatment planning for this component is highly flexible; for example, length of stay may range from only a few days when a home is utilized for respite to several months for more intransigent problems. Clients are generally placed singly in therapeutic homes, with occasional exceptions such as respite care situations or in cases when siblings may be involved. Therapeutic parents are licensed by the State of North Carolina, are paid a stipend as contractors with Cardinal Mental Health Group, Inc., and receive ongoing clinical support and supervision from a masters level social worker. Therapeutic parents receive intensive pre-service, pre-licensing training, which also serves to screen the most desirable candidates for therapeutic home contracts.

The section is headed by a clinical social worker and is staffed by masters level clinicians and a bachelors level recruiter/trainer. Each masters level clinician provides intensive ongoing support to six therapeutic home families. Average length of stay in 1993 for other than respite placements was is 19.1 weeks. Continued expansion of this highly cost-effective program is planned.

Therapeutic Group Homes. The primary purpose of therapeutic group homes is to provide an intensive, highly-structured treatment program to clients with serious emotional/behavioral disturbances, in an environment which closely approximates a "natural" home environment. Each of Rumbaugh Clinic's three group homes has a capacity of six beds. One of the homes serves as a crisis stabilization group home, with 24-hour emergency accessibility, and a 1:2 staff-to-client ratio. The other two homes are utilized on a planned referral basis and maintain a 1:3 staff-to-client ratio. The Clinic contracts with private group homes when additional beds are needed.

Each group home is managed by an experienced bachelors level clinician. The crisis stabilization group home manager is a registered nurse who can provide more immediate medical intervention when necessary. In addition, this nurse is on-call to assist the other

two homes when the services of a nurse are needed. A masters level social worker is assigned to each group home to provide individual, group, and family therapies. The three homes are currently staffed by Child Care Specialists who provide 24-hour coverage during three shifts.

Residential Treatment Center and Inpatient Treatment Services. Large group residential treatment (RTC) and inpatient hospitalization are provided by contracts with hospitals in the area. The majority of clients admitted to inpatient services have been for short-term treatment/crisis stabilization or for comprehensive evaluations, both less than 22 days. In cases with extremely severe, chronic clinical status, hospitalization has been longer-term. All hospitalization must be pre-authorized by the Rumbaugh Clinic. Continued hospitalization is closely monitored by the assigned Clinical Case Manager, and care is reviewed weekly and re-authorized if still needed by the Treatment Team.

Emergency Services. Emergency services are available 24 hours per day, seven days per week. Clinic staff are available to respond to emergency requests within two hours. After hours calls are handled by a telephone service, with on-call staff trained to respond to emergencies and to try to handle the emergency without removing the child from the family unless clearly necessary. This approach has resulted in a minimal number of emergency inpatient admissions. Of the 5,846 after-hour calls received by the Clinic during 1993, only 46 (0.8%) resulted in an emergency hospitalization. This reflects favorably on the effectiveness of prevention services as well as appropriate handling of after-hour crises by clinicians.

Clinical Case Management. In a complex system of child mental health services, effective clinical case management is essential to ensuring the system's success. Case managers serve as client and family advocates and are charged with coordinating and monitoring all services throughout the course of treatment. As has been described by Behar

(1985), and others, e.g., Stroul & Friedman (1986), Clinical Case Managers in the Rumbaugh system must also perform the broader ecological assessments of clients which may lead to linkages with community supports and agencies outside the mental health system. This section, staffed by masters level case managers, is responsible for coordinating the meetings of the comprehensive treatment teams, writing comprehensive treatment plans, and assuring that appropriate referrals are made and services provided. The Clinical Case Manager is also responsible for organizing treatment team reviews of progress during the course of treatment at regular intervals or whenever there is a perceived need for change in level of care. Except in unusual cases, Clinical Case Managers are used to provide case management services only for clients receiving more than outpatient services. In order to successfully provide intensive case management, caseloads are normally limited to 15 clients. The progress of clients in outpatient services is monitored through reports provided by the treating professional and through treatment team reviews after 23 visits or one year.

ACCOMPLISHMENTS

Although conclusive evaluation results are not scheduled to be available from the Vanderbilt Institute for Public Policy until September 30, 1994, preliminary data reflect very favorably on the Demonstration Project and the positive impact that the integrated continuum of community-based services is having on reducing inpatient psychiatric hospital and residential treatment center utilization by using high quality, lower cost, intermediate-level and outpatient services whenever clinically appropriate. Access to care has been improved by increasing the number of mental health providers available and making a wide range of mental health services available to military families in a variety of settings throughout the community. This has reduced the average waiting time for an appointment from five months as was the case prior to the Demonstration Project to under three weeks and has resulted in services being provided to an average active caseload that is eight times

the number that received services prior to the Demonstration Project. Valuable information has been collected on service utilization and the distribution of clients across components of the continuum of care. Preliminary data indicate a high level of client and parent confidence and satisfaction with services provided, and a lower average cost of care per client served than at the standard CHAMPUS comparison sites.

The Demonstration Project reduced utilization of inpatient hospital care and residential treatment in hospital settings as a percentage of total clients served from 7.5% in June 1990 to 0.6% in June 1993. Clients have been shifted to more appropriate and less expensive intermediate levels of care and outpatient services. As the full continuum of services was phased-in over time, the average number of inpatient days per 1,000 eligible beneficiaries decreased from 150.9 in 1991 to 94.8 in 1993 for a 37.2% reduction. Inpatient average length of stay for children decreased from 46.5 days to 30.8 days, a 33.8% decrease; for adolescents it decreased from 34.2 days to 20.6 days, a 39.8% decrease; and for both combined, average length of stay decreased from 36.4 days to 22.3 days, a 38.7% decrease, during this same period. Similarly, the average number of RTC days per 1,000 eligible beneficiaries decreased from 61.9 in 1991 to 26.7 in 1993, representing a 56.9% reduction, and average length of stay decreased from 105.1 days to 79.0 days, representing a 25% reduction.

According to interim evaluation data provided by Vanderbilt University, during the first six months of the Demonstration Project's second year of operation (7/1/91 - 12/31/91), the effects of a fully integrated, comprehensive system of care were already noticeable when measured against the comparison sites at Fort Campbell and Fort Stewart. Access at the demonstration site, as measured by the percentage of eligible children receiving services, was better with 6.1% receiving services compared to 1.9% at the comparison sites. The reduction in the number of children receiving inpatient services was

dramatic, with only 3.9% of the children served receiving inpatient services at the demonstration site compared to 9.9% of the children served at the comparison sites. While inpatient services at the demonstration site were provided to a smaller, more acute group of children, the average number of days this group was hospitalized was only slightly higher, at 27 days at the demonstration site vs. 25 days at the comparison sites. The reduction in the number of children who were admitted to residential treatment centers (RTC's) was even more pronounced with less than 1% of the children served admitted to RTC's at the demonstration site compared to 5.1% admitted to RTC's at the comparison sites. Children who were placed in RTC's spent less time there at the demonstration site averaging 46 days vs. 75 days at the comparison sites. Changes in service utilization patterns resulted in a substantial reduction in the total portion of spending for inpatient and residential treatment services at the demonstration site. The proportion of total spending on inpatient and residential treatment services at the demonstration site during this period was 27% vs 84% at the comparison sites. This shift in spending patterns freed substantial resources with which to provide a wider variety of less restrictive mental health and substance abuse treatment services to a greater number of children in need at the demonstration site. The provision of a comprehensive service system at the demonstration site resulted in a lower annual cost per child served at $5,170 than at the comparison sites at $6,450.

Comparing the number of client days and cost of 24-hour services at the demonstration site from its second to third year of operation reveals an interesting shift in utilization and cost. The number of client days of inpatient and RTC decreased from 8,826 days at a cost of $4,454,248 to 5,542 days, representing a reduction of 3,284 days or 37.2% at a cost of $2,812,414, reflecting a reduction of $1,641,834 and a 36.9% savings. Including therapeutic individual and group home utilization during this same period, the total number of client days increased from 21,232 days to 24,363 days representing an increase of 3,131

days or 14.7%, while the cost of care decreased from $6,965,212 to $6,349,594, representing a reduction of $615,618 or 8.8%. The availability of mid-range residential services resulted in a significant reduction in the utilization of more restrictive and expensive hospital services. However, clients actually received more 24-hour services at lower cost to the project than the year before.

According to the final implementation and quality studies reports by the Vanderbilt University evaluation team (Bickman, Bryant & Summerfelt, 1993; Bickman & Heflinger, 1993), the effects of the Demonstration Project's coordination of services at the community level on the military dependent children and youth in the Fort Bragg area included fewer reported system-level problems, greater adequacy and quality of mental health services available, better service system performance, and better adherence to the goals of an ideal service system. Final cost and outcome studies reports by Vanderbilt are expected to be completed by September 30, 1994.

Although these final reports are not yet available, preliminary data appears to indicate that the mental health and substance abuse treatment needs of children can be better met through a comprehensive, fully integrated, community-based system of services. The Department of the Army deserves credit for the leadership role it has taken and the contributions it has made to improving the delivery of children's mental health services by participating in this important national demonstration.

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